

Appln No. Unassigned
Amdt date August 21, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A shoulder joint prosthesis comprising two cooperating bearing bodies (11), a shaft (13) and a coupling (15) for the connection of the shaft (13) to one of the bearing bodies (11), wherein a support member (21) adjoins ~~the~~ a lower side (19) of the bearing body (11) connectable to the shaft (13), an outer support surface (23) of said support member (21) at least partly filling a gap present between the bearing body (11) and the shaft (13) in the state connected to the shaft (13) such that the growing together of bone fragments is promoted.

2. (Currently Amended) A shoulder joint prosthesis in accordance with claim 1, ~~characterized in that~~ wherein the coupling for the connection of the shaft (13) includes a clamping section (15) with which a firm clamping seat of the coupling (15) in the shaft (13) can be established by introducing into a coupling mount of the shaft (13), in particular a clamping seat which can be released again.

3. (Currently Amended) A shoulder joint prosthesis in accordance with claim 2, ~~characterized in that~~ wherein the clamping section (15) tapers like a cone and can be introduced into a correspondingly shaped counter shape of the shaft (13) as a coupling mount.

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4. (Currently Amended) A shoulder joint prosthesis in accordance with claim 2, ~~characterized in that~~ wherein the clamping section (15) forms a shape matched connection with the counter shape which is rotationally fixed with respect to a longitudinal axis and is wedged by its conical shape in the state connected to the shaft (13).

5. (Currently Amended) A shoulder joint prosthesis in accordance with claim 2, ~~characterized in that~~ wherein the clamping section (15) has a cross-section deviating from a circular shape.

6. (Currently Amended) A shoulder joint prosthesis in accordance with claim 2, ~~characterized in that~~ wherein the clamping section (15) has an elliptical cross-section.

7. (Currently Amended) A shoulder joint prosthesis in accordance with claim 6, ~~characterized in that~~ wherein the elliptical cross-section of the clamping section (15) and of the counter shape of the shaft (13) is aligned in its plane such that the major axis of the ellipse appears as a perpendicular in a projection toward lateral.

8. (Currently Amended) A shoulder joint prosthesis in accordance with claim 6, ~~characterized in that~~ wherein the shaft (13) has, in the plane of the elliptical cross section, the outline of a rectangle provided with rounded corners whose long sides extend parallel to the major axis of the ellipse.

9 (Currently Amended) A shoulder joint prosthesis in accordance with claim 1, ~~characterized in that~~ wherein the

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support surface (23) of the support member (21) is at least regionally convex.

10. (Currently Amended) A shoulder joint prosthesis in accordance with claim 1, ~~characterized in that the~~ wherein a jacket surface of the shaft (13) and the support surface (23) of the support member (21) together form an at least substantially closed surface which adjoins the lower side (19) of the bearing body (11).

11. (Currently Amended) A shoulder joint prosthesis in accordance with claim 1, ~~characterized in that~~ wherein the support surface (23) of the support member (21) at least approximately tangentially adjoins ~~the~~ a jacket surface of the shaft (13).

12. (Currently Amended) A shoulder joint prosthesis in accordance with claim 1, ~~characterized in that~~ wherein the support surface (23) of the support member (21) is structured.

13. (Currently Amended) A shoulder joint prosthesis in accordance with claim 1, ~~characterized in that~~ wherein the support surface (23) of the support member (21) is made free of apertures.

14. (Currently Amended) A shoulder joint prosthesis in accordance with claim 1, ~~characterized in that~~ wherein the support member (21) is replaceably connected to the bearing body (11).

15. (Currently Amended) A shoulder joint prosthesis in accordance with claim 1, ~~characterized in that~~ wherein, when the

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bearing body (11) is connected to the shaft (13), at least one recess (31) is present between the shaft (13) and the support member (21) at which a tool can be positioned to release the bearing body (11) from the shaft (13).

16. (Currently Amended) A shoulder joint prosthesis in accordance with claim 1, ~~characterized in that~~ wherein the shaft (13) is provided with a support element (27), in particular of basket-like or quiver-like shape, which is mounted laterally at the shaft (13) and whose outer side forms ~~the~~ a jacket surface of the shaft (13) merging into the support surface (23) of the support member (21) in the region of the transition from the shaft (13) into the support member (21).

17. (Currently Amended) A shoulder joint prosthesis in accordance with claim 16, ~~characterized in that~~ wherein the support element (27) is fixedly connected to the shaft (13) and is in particular welded to the shaft.

18. (Currently Amended) A shoulder joint prosthesis in accordance with claim 16, ~~characterized in that~~ wherein the support element (27) is made in one piece with the shaft (13).

19. (Currently Amended) A shoulder joint prosthesis in accordance with claim 16, ~~characterized in that~~ wherein the support element (27) is provided with apertures (29).

20. (Currently Amended) A shoulder joint prosthesis in accordance with claim 19, ~~characterized in that~~ wherein the proportion of the sections of the outer surface of the support element (27) interrupted due to the apertures (29) lies in the

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range from 35% to 45% along a peripheral line (141) of the support element (27) which lies in the implanted state in a plane extending perpendicular to the shaft axis (143) and, in the proximal direction, at a spacing of 8 mm from the point of intersection (145) between the shaft axis (143) and the head axis or shell axis (147).

21. (Currently Amended) A shoulder joint prosthesis in accordance with claim 16, ~~characterized in that~~ wherein, with respect to the orientation of the support element (27) in the implanted state with the shaft axis (143) extending perpendicular to the transverse plane, the ratio X/Y of the maximum outer diameter of the support element (27) in the sagittal direction X and the maximum outer diameter of the support element (27) in the transverse direction Y lies in the range from 0.85 to 0.95.